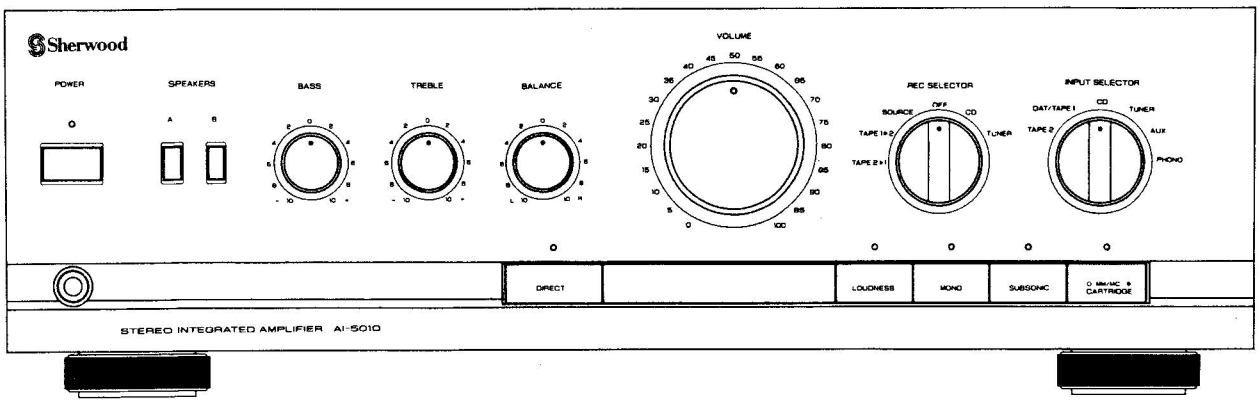
SERVICE MANUAL

AI-5010
STEREO INTEGRATED AMPLIFIER



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Schematic Diagram ..... Separate Sheet

Sherwood

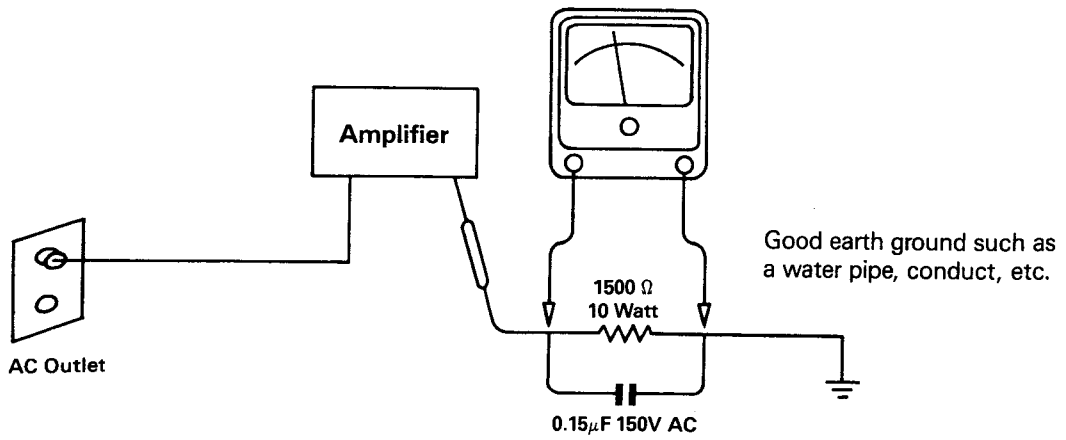
Safety Precaution

WARNING

Service should not be attempted by anyone unfamiliar with the necessary precautions on this player. The following precautions are necessary during servicing.

1. Many electrical and mechanical parts in this player have special characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristic are identified in this manual and its supplements: electrical components having such features are identified by a ⚠ in the schematic diagram and the parts list.
   Before replacing any of these components, read the parts list in this manual carefully.
   The use of substitute replacement parts that do not have the same safety characterstics as specified in the parts list may create shock, fire or other hazards.
2. Before returning the set to the customer, always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as terminals, screwheads, metal overlays, etc. to be sure the set is safe to operate without danger of electrical shock. Plug the AC line cord directly into a 120V AC outlet **(120V Version only)**. (Do not use a line isolation transformer during this check.) Use an AC voltmeter having 5000 Ω per volt or more sensitivity in the following manner: Connect a 1500 Ω 10 watt resistor paralleled by a 0.15μF, 150V AC capacitor, between a known good earth ground (water pipe, conduct, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of 1500 Ω resistor and 0.15μF capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.3 volts RMS. This corresponds to 0.2mA AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

AC VOLT METER
(5000 Ω per volt or more sensitivity)
Reading should not exceed 0.8V



Place this probe on each exposed metallic parts.

Specifications

USA/Canadian version

Power output/ch.
Minimum continuous average both channels driven with no more than 0.05% THD.
at 8 ohms 1kHz 72W
at 8 ohms 20Hz to 20kHz 70W
Intermodulation Distortion, 60Hz: 7kHz=4:1 Smpte
70W output into 8 ohms 0.01%
Damping Factor at 1 kHz into 8 ohms 150
Input Sensitivity for 70W output, 8 ohms at 1 kHz
Phono MC/MM 0.3/2.5mV
Aux/Tuner 150mV
Phono Preamp input overload;
at 1 kHz, 0.1% THD. MC/MM 18/170mV
at 10 kHz, 0.1% THD. MM 7V
Signal to Noise ratio, IHF "A" wtd./unwtd.;
Phono MC 68/60dB
Phono MM 74/70dB
Aux (CD/Tuner) 94/88dB
Frequency Response
Phono, RIAA 40-20,000 Hz ..... ±0.5dB
Aux at 1W, −3dB 5Hz-70kHz
Loudness Contour (at loudness point)
at 100 Hz ..... +5dB
at 10 kHz ..... +3dB
Tone Control (at loudness point)
Bass at 100Hz ..... ±8dB
Treble at 10kHz ..... ±8dB
Function Crosstalk
Aux→Phono: 1kHz 66dB
Phono→Aux: 1kHz 68dB
Power Consumption 430W
Power Requirements;
A: 120V 60Hz for USA/Canadian version
B: 120/220V 60/50Hz for multi-voltage version (switchable)
C: 230V 50Hz for General Europian version
D: 230V 50Hz for Germanian & Italian version
E: 240V 50Hz for British & Australian version
F: 230V 50Hz for Swiss & Scandinabian version
Dimensions (W×H×D) ..... 440(W)×125(H)×280(D)mm
17.3(W)×4.9(H)×11(D) inches
Weight(net) 11.5kg (12.4lbs, 4.25oz)

Europian version

Power output/ch.
- IEC standard 63Hz to 12.5kHz 8 ohms 75W
- DIN standard 1kHz 8 ohms 80W

Total Harmonic Distortion at −6dB rated output 1kHz 8 ohms 0.01%
Intermodulation Distortion at −6dB rated output 8 ohms 0.01%
Damping Factor at 1 kHz into 8 ohms 150
Input Sensitivity for 70W output at 1 kHz 8 ohms
- Phono MC/MM 0.3/2.5mV
- Aux/Tuner 150mV

Phono Preamp input overload;
- at 1 kHz, 0.1% THD. MC/MM 18/170mV

Signal to Noise ratio, IEC "A" wtd./unwtd.;
- Phono MM: 5mV input 2.2kohm shorted and vol. adj. to 70W 74/66dB
- AUX: 500mV input 2.2kohm shorted and vol. adj. to 70W 94/88dB

Frequency Response
- Phono, RIAA 40-20,000 Hz ..... ±0.5dB
- Aux at 1W, −3dB 5Hz-70kHz

Loudness Contour (at loudness point)
- at 100 Hz ..... +5dB
- at 10 kHZ ..... +3dB

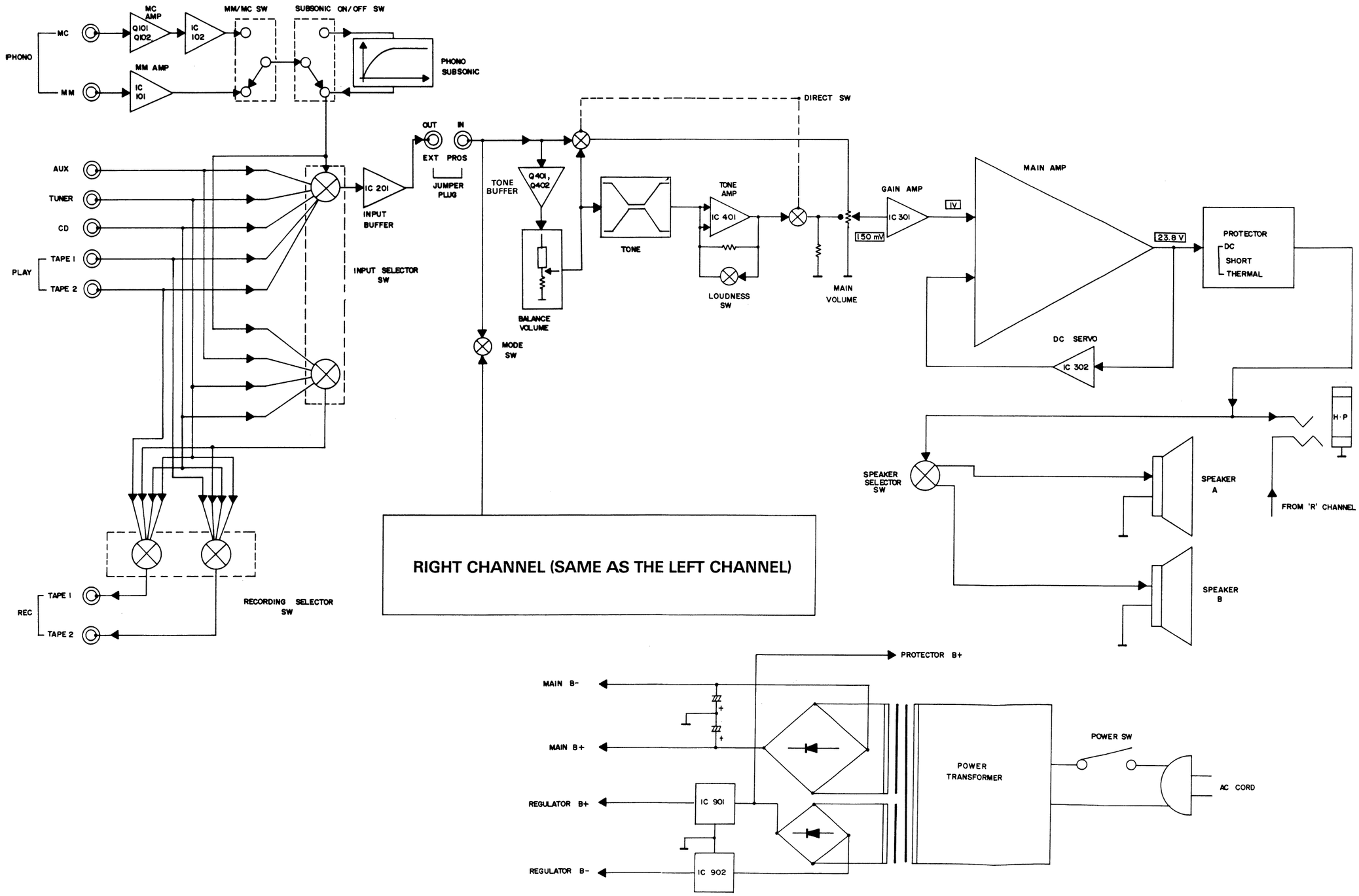
Tone Control (at loudness point)
- Bass at 100Hz ..... ±8dB
- Treble at 10kHz ..... ±8dB

Power Consumption 430W
Power Requirements;
- A: 120V 60Hz for USA/Canadian version
- B: 120/220V 60/50Hz for multi-voltage version (switchable)
- C: 230V 50Hz for general Europian version
- D: 230V 50Hz for Germanian & Italian version
- E: 240V 50Hz for British & Australian version
- F: 230V 50Hz for Swiss & Scandinabian version

Dimensions (W×H×D) ..... 440(W)×125(H)×280(D)mm
17.3(W)×4.9(H)×11(D) inches
Weight(net) 11.5kg (12.4lbs, 4.25oz)

Note: Specifications and design subject to change without notice for improvements. Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the Europian standard, and provides information on regional circuit modification through use of aletrnate schematic or wiring diagram,and information on regional component variations through use of parts list.

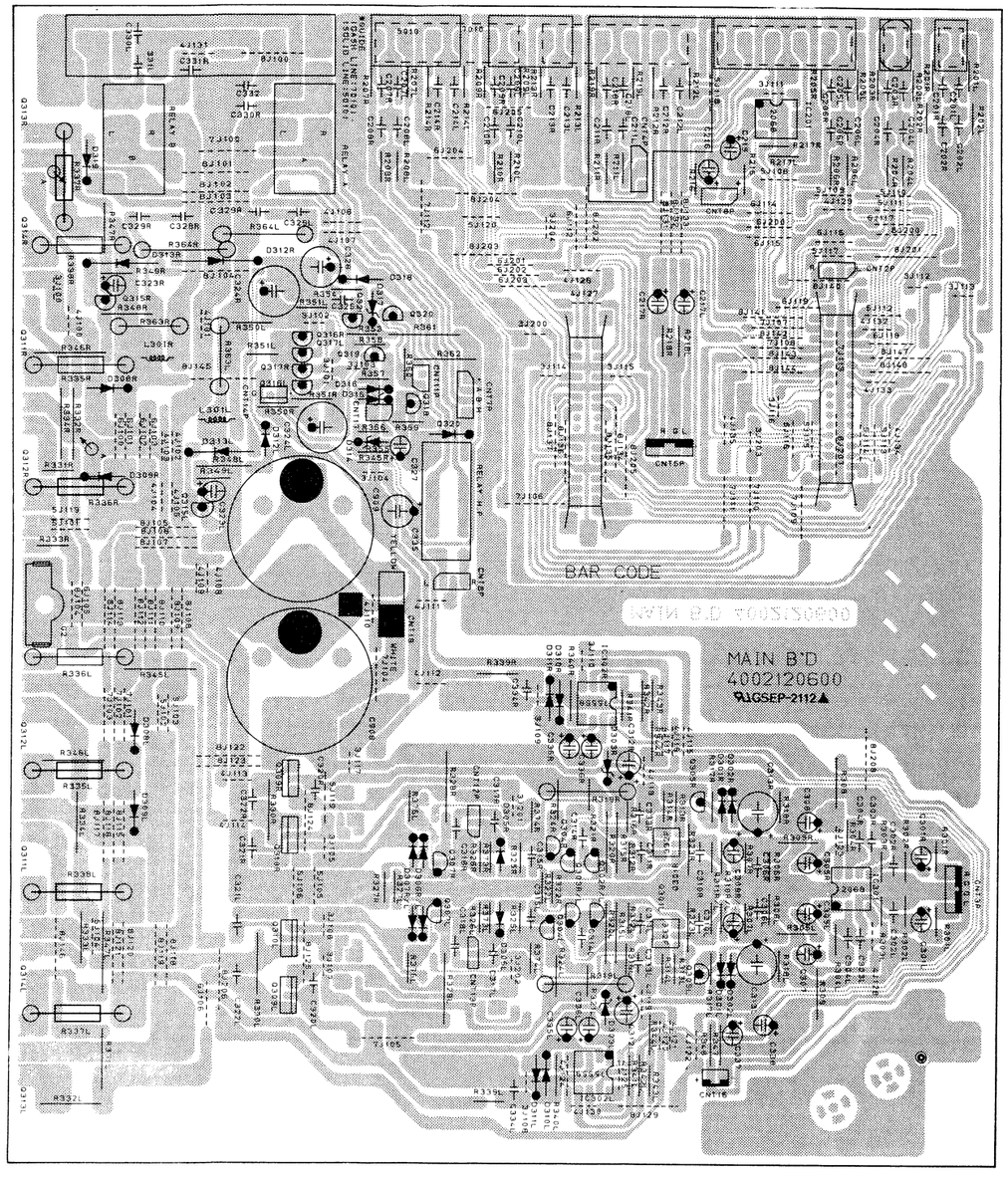
Block Diagram



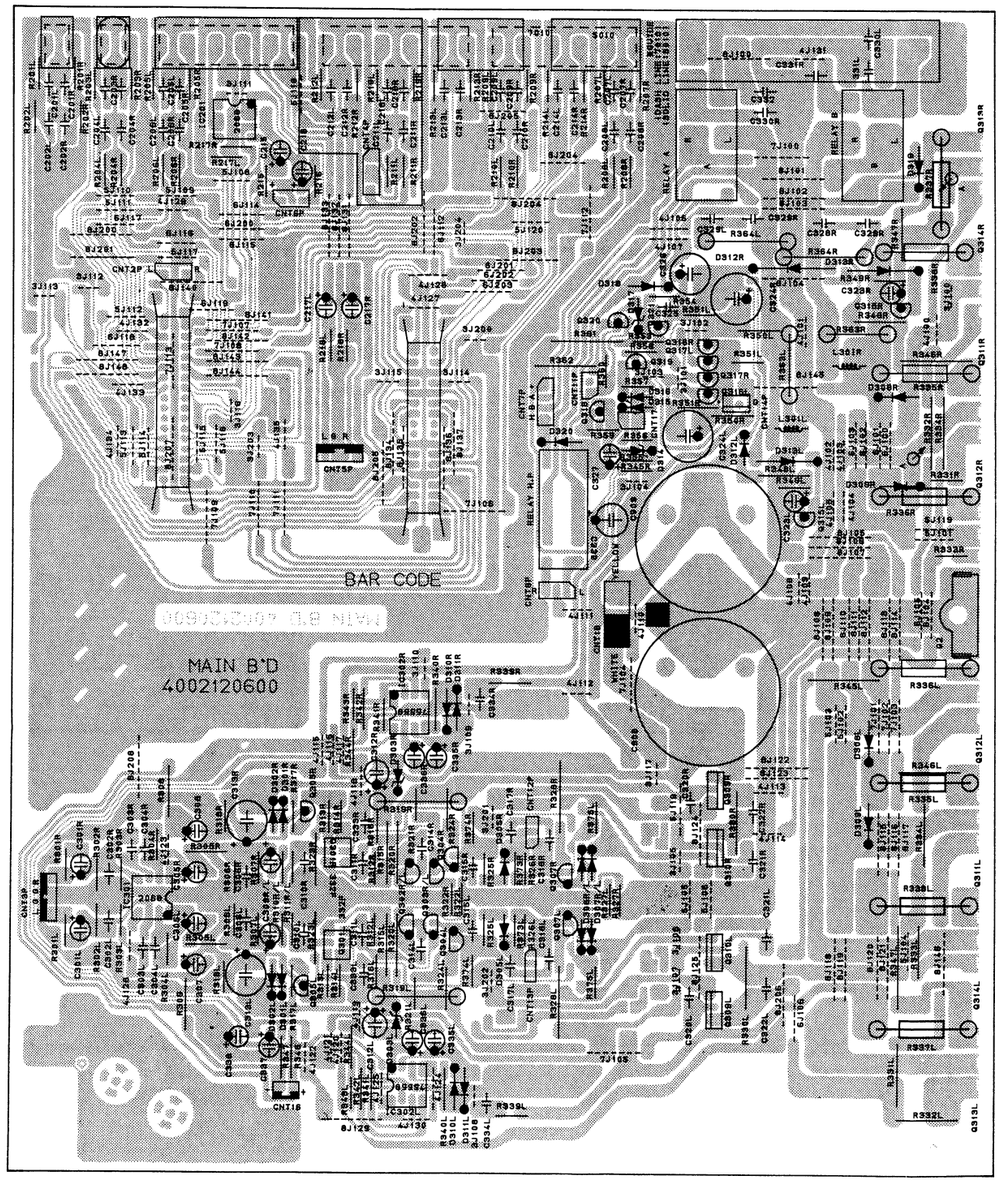
P.C. Boards (Top & Bottom Views)

MAIN P.C. BOARD 4002120600

(TOP VIEW)

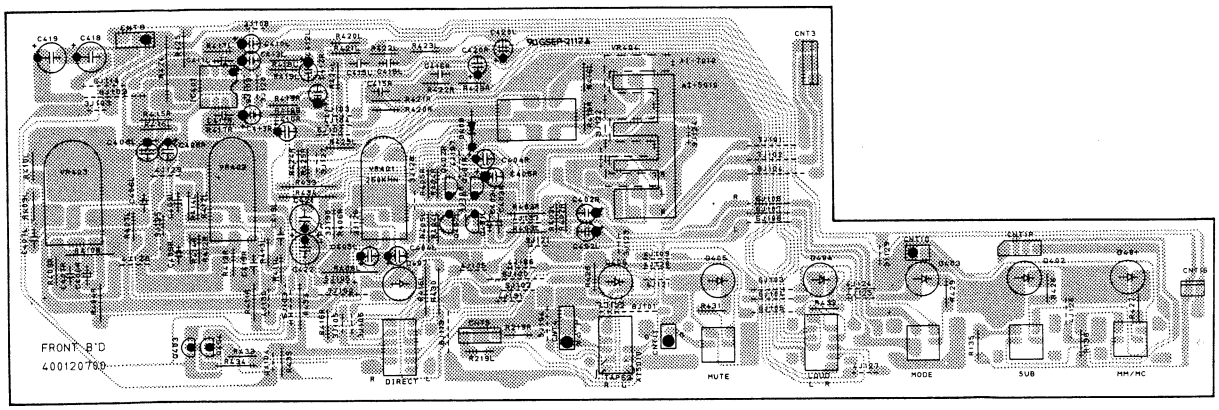


(BOTTOM VIEW)

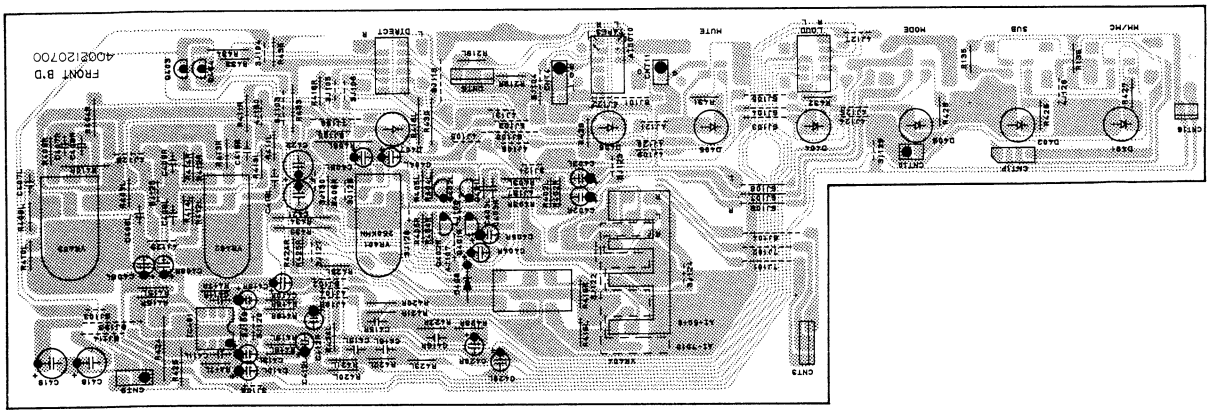


FRONT P.C. BOARD 4002120700

(TOP VIEW)

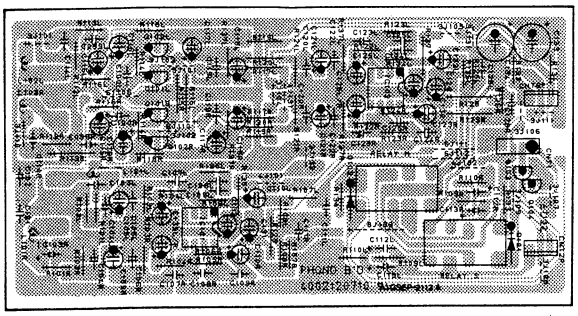


(BOTTOM VIEW)

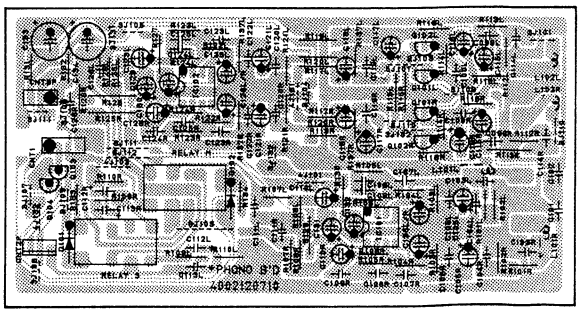


PHONO P.C. BOARD 4002120710

(TOP VIEW)

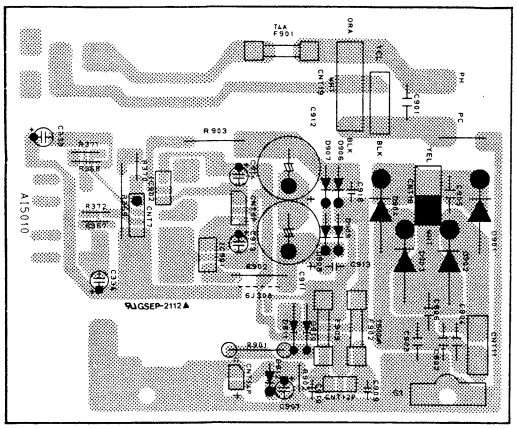


(BOTTOM VIEW)



POWER P.C. BOARD 4002120720

(TOP VIEW)



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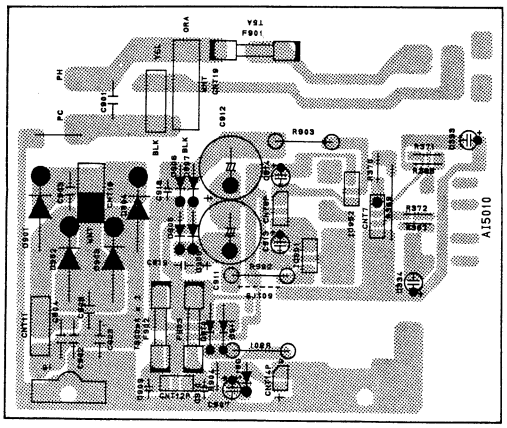
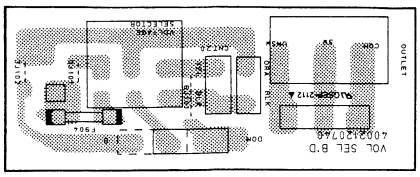


VOL SEL P.C. BOARD 4002120740

(TOP VIEW)



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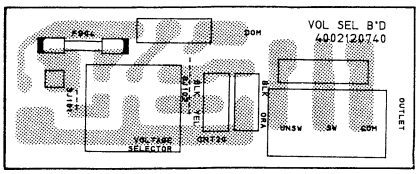
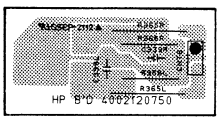


HP P.C. BOARD 4002120750

(TOP VIEW)



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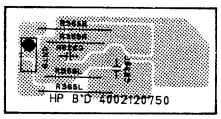
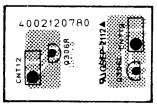


BIAS P.C. BOARD 4002120780

(TOP VIEW)



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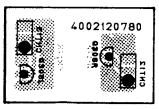
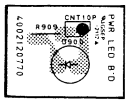


PWR LED P.C. BOARD 4002120770

(TOP VIEW)



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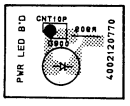
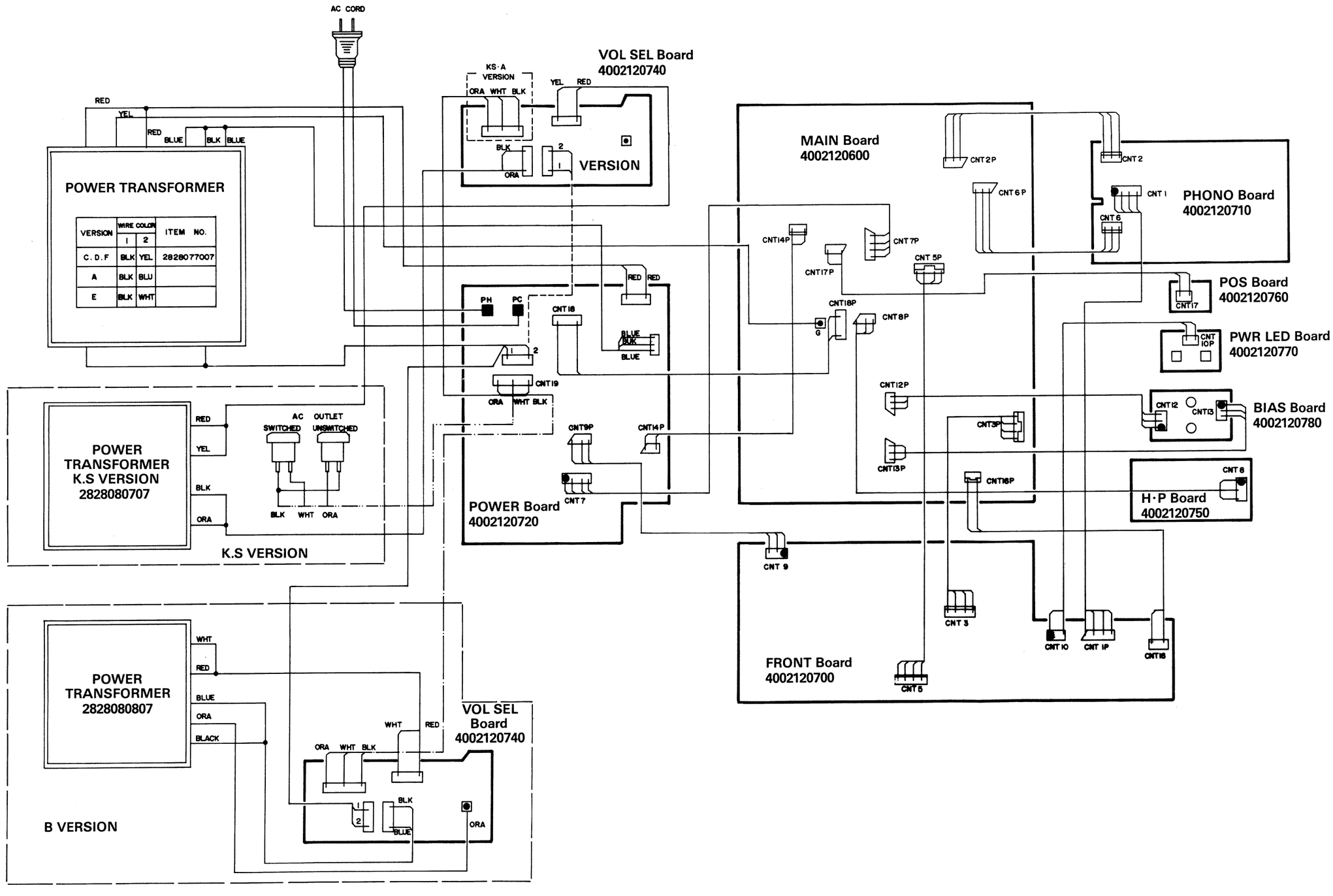


POS P.C. BOARD 4002120760

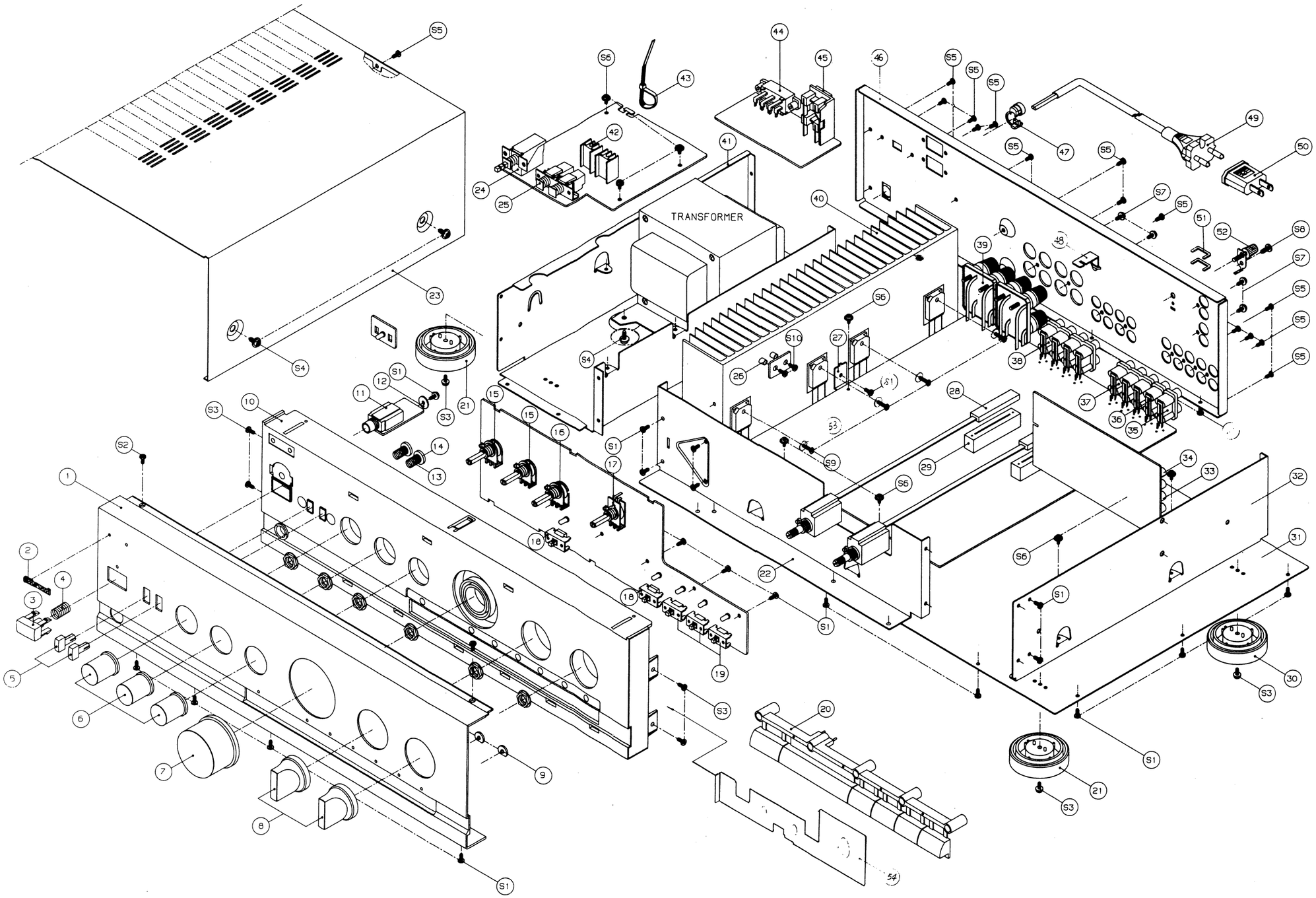
(TOP VIEW)

(BOTTOM VIEW)

Wiring Diagram



Exploded View (Cabinet & Chassis)



Electrical Parts List

PRODUCT SAFETY NOTICE: Products marked with ⚠ have special characteristics important to safety. If you replace any of these components, carefully read the product safety notice of this manual. Don't degraded the safety of the product through improper servicing. Remark meaning for version, therefore refer to power requirement of Specifications in this manual. Resistors & Capacitors tolerance; D: (±5%), J: (±0.5%), K: (±10%), M: (±20%), Z: (+80%, −20%).

Ref. No.	Part No.	Description				Remark
Main P.C. Board 4002120600						
Capacitors						
C201L/R -C210L/R	3579101130	Ceramic	100pF	100V	D	D
C211L/R -C214L/R	3579101130	Ceramic	100pF	100V	D	D
C215/C216	3479247041	Electric SA	47μF	25V	M	
C217L/R	3479222041	Electric SA	22μF	25V	M	
C218L/R	3579101130	Ceramic	100pF	100V	D	D
C301L/R	3479247971	Electric SA	4.7μF	50V	M	
C302L/R	3579470130	Ceramic	47pF	50V	D	
C303L/R	3579331130	Ceramic	330pF	50V	D	
C304L/R	3579561130	Ceramic	560pF	50V	D	
C305L/R	3479210061	Electric SA	10μF	35V	M	
C306L/R	3679102120	Mylar	0.001μF	100V	J	
C307/C308	3479247041	Electric SA	47μF	25V	M	
C309L/R	3479222971	Electric SA	2.2μF	50V	M	
C310L/R	3579471130	Ceramic	470pF	50V	D	
C311L/R	3579102530	Ceramic	1000pF	50V	D	
C312L/R	3479247071	Electric SA	47μF	50V	M	
C313L/R	3409247121	Ceramic	470μF	10V	M	
C314L/R	3579150130	Ceramic	15pF	50V	D	
C315L/R	3579150130	Ceramic	15pF	50V	D	
C316L/R	·	Not used !				
C317L/R	3579471130	Ceramic	470pF	50V	D	
C318L/R	3679472120	Mylar	0.047μF	100V	J	
C319L/R	·	Not used !				
C320L/R	3579101130	Ceramic	100pF	50V	D	
C321L/R	3579101130	Ceramic	100pF	50V	D	
C322L/R	3679472120	Mylar	0.47μF	100V	J	
C323L/R	3479210971	Electric SA	1μF	50V	M	
C324L/R	3409247131	Electric SA	470μF	16V	M	
C325	3679102120	Mylar	0.01μF	100V	J	
C325L/R	3479222041	Electric SA	22μF	25V	M	
C326	3479210131	Electric SA	100μF	16V	M	
C326L/R	3479222041	Electric SA	22μF	25V	M	
C327	3479247871	Electric SA	0.47μF	100V	M	
C328L/R	3609104120	Mylar	0.1μF	100V	J	
C329L/R	3609104120	Mylar	0.1μF	100V	J	
C330L/R -C332L/R	3579472530	Ceramic	4700pF	100V	D	D
C333L/R	3579809030	Ceramic	8pF	50V	D	
C335	3409222169	Electric SA	220μF	35V	M	
C336	·	Not used !				
C337/C338	3479247041	Electric SA	47μF	25V	M	
Coil						
L301L/R	2648601470	Inductor 0.5mH				
Diodes						
D301L/R	2058306101	1N4148				
D302L/R	2058306101	1N4148				
D303L/R	2258522127	Zener DZ27				
D304L/R		Not used !				

Ref. No.	Part No.	Description	Remark
D305L/R -D307L/R	2058306101	1N4148	
D308L/R	2258106100	1N4002	
D309	2258106100	1N4002	
D310L/R -D313L/R	2058606101	1N4148	
D314	2258522119	Zener DZ12	
D315	2258522111	Zener DZ5.6	
D316	2058306101	1N4148	
D317	2258522119	1N4002	
D318-D320	2258106100	1N4002	
Resistors: All resistors are 1/5W carbon film ±5% tolerance, unless otherwise specified. M. is metal film, M.O is metal oxide and C. is cement type.			
R201L/R	3069102970	1kΩ	
R202L/R	3069224970	220kΩ	
R203L/R	3069102970	1kΩ	
R204L/R	3069224970	220kΩ	
R205L/R	3069102970	1kΩ	
R206L/R	3069224970	220kΩ	
R207L/R	3069102970	1kΩ	
R208L/R	3069224970	220kΩ	
R209	3069102970	1kΩ	
R210L/R	3069224970	220kΩ	
R211/R212	·	Not used !	
R213L/R	3069272970	2.7kΩ	
R214L/R	3069272970	2.7kΩ	
R215/R216	3069470970	47Ω	
R217L/R	3069563970	56kΩ	
R218L/R	3069472970	4.7kΩ	
R219L/R	3069181970	180Ω	
R301L/R	3069102970	1kΩ	
R302L/R	3069473970	47kΩ	
R303L/R	3069271970	270Ω	
R304L/R	3069152970	1.5kΩ	
R305L/R	3069471970	470Ω	
R306L/R	3069104970	100kΩ	
R307L/R	3069474970	470kΩ	
R308	3069470970	47Ω	
R309	3069470970	47Ω	
R310L/R	3069102970	1kΩ	
R311L/R	3069563970	56kΩ	
R312L/R	3069331970	330Ω	
R313L/R	3069470970	47Ω	
R314L/R	3069470970	47Ω	
R315L/R	3069332970	3.3kΩ	
R316	3069332970	3.3kΩ	
R317L/R	3069102970	1kΩ	
R318L/R	3069273970	27kΩ	
R319L/R	3039222576	M.O., 2.2kΩ 2W	
R320L/R	3069122970	1.2kΩ	
R321L/R	3069122970	1.2kΩ	
R322L/R	3069103970	10kΩ	
R323L/R	3069122970	1.2kΩ	
R324L/R	3069121127	M., 120Ω 1/4W	
R325L/R	3069272970	2.7kΩ	
R326L/R	3069202970	2kΩ	

Ref. No.	Part No.	Description	Remark
R327L/R	3069183970	18kΩ	
R328L/R	3069121127	M., 120Ω 1/4W	
R329	·	Not used !	
R330L/R	3069339970	M.O., 390Ω 1/2W	
R331L/R	·	Not used !	
R332L/R	3069339970	3.3Ω	
R333L/R	·	Not used !	
R334L/R	3069339970	3.3Ω	
R335L/R	·	Not used !	
R336L/R	3059398782	C., 0.39Ω 5W	
R337L/R	3059398782	C., 0.39Ω 5W	
R338L/R	·	Not used !	
R339L/R	3069183970	18kΩ	
R340L/R	3069183970	18kΩ	
R341L/R	3069472970	4.7kΩ	
R342L/R	3069242970	2.4kΩ	
R343L/R	3069472970	4.7kΩ	
R344L/R	3069273970	27kΩ	
R345L/R	3069273970	27kΩ	
R346L/R	3069222970	2.2kΩ	
R347L/R	3069222970	2.2kΩ	
R348L/R	3069153970	15kΩ	
R349L/R	3069222970	2.2kΩ	
R350L/R	3069223970	22kΩ	
R351L/R	3069222970	2:2kΩ	
R352	3069271970	270Ω	
R353	3069103970	10kΩ	
R354	3069101970	100Ω	
R355	3069223970	22kΩ	
R356	3069432970	4.3kΩ	
R357	3069123970	12kΩ	
R358	3069102970	1kΩ	
R359	3069222970	2.2kΩ	
R360	3069223970	22kΩ	
R361	3069473970	47kΩ	
R362	3069153970	15kΩ	
R363L/R	3039101476	M.O., 100Ω 1W	
R364L/R	3039100576	M.O., 10Ω 2W	
R371L/R	3069102970	1kΩ	
R373	3069123970	12kΩ	
R374L/R	3069339970	3.3Ω	
R375L/R	3069339970	3.3Ω	
Relay A	5528001500	Relay DH24D 2-0T 7A	
Relay B	5528001500	Relay DH24D 2-0T 7A	
Relay H	5528001480	Relay DH24D 2-0T 3A	
Transistors			
Q301L/R	2018217700	Differential Amplifier 2SK332F FET	
Q302L/R	2208606108	Differential Amplifier KTC2240	
Q303L/R	2208606108	Differential Amplifier KTC2240	
Q304L/R	2008206102	Pre-driver KTA949	
Q305L/R	2208606114	Current Mirror A06	
Q307L/R	2008606107	Pre-driver KTC2229	
Q308L/R	·	Not used !	
Q309L/R	2028407118	Driver 2SC2168	
Q310L/R	2028107115	Driver 2SA958	
Q311L/R	·	Not used !	
Q312L/R	2028116103	Power 2SA1491	
Q313L/R	2028416106	Power 2SC3855	
Q314L/R	·	Not used !	

Ref. No.	Part No.	Description	Remark
Q315L/R	2208606114	Switching A06	
Q316L/R	2208606114	Switching A06	
Q317	·	Not used !	
Q318	2208606114	Switching A06	
Q319	2008606104	Switching C1815Y	
Q320	2208606114	Switching A06	
Q321	2208206113	Switching A55	

Phono P.C. Board 4002120710

Capacitors						
C099L/R	3579331130	Ceramic	330pF	50V	D	D
C100L/R	3579681130	Ceramic	680pF	50V	D	
C101/C102	3579473530	Ceramic	0.047μF	50V	Z	
C103L/R	3579220210	Ceramic	22pF	50V	D	
C104L/R	3579680130	Ceramic	68pF	50V	D	
C105L/R	3479247971	Electric SA	4.7μF	50V	M	
C106L/R	3579100030	Ceramic	10pF	50V	D	
C107L/R	3579222530	Ceramic	2200pF	50V	Z	
C108L/R	3679182120	Mylar	0.0018μF	100V	J	
C109L/R	3679562120	Mylar	0.0056μF	100V	J	
C110L/R	3479268871	Electric SA	0.68μF	100V	M	
C111L/R	3679562120	Mylar	0.0056μF	100V	J	
C112L/R	3658224201	Tantal	0.22μF	16V	K	
C113L/R	3658224201	Tantal	0.22μF	16V	K	
C114L/R	3579472530	Ceramic	4700pF	50V	Z	
C115L/R	3479210121	Electric SA	100μF	10V	M	
C116L/R	3479210121	Electric SA	100μF	10V	M	
C117L/R	3479222031	Electric SA	22μF	16V	M	
C118L/R	3479222031	Electric SA	22μF	16V	M	
C119L/R	3679472120	Mylar	0.0047μF	100V	J	
C120L/R	3679102120	Mylar	0.001μF	100V	J	
C121L/R	3479247971	Electric SA	4.7μF	50V	M	
C122L/R	3579100030	Ceramic	10pF	50V	D	
C123L/R	3579222530	Ceramic	2200pF	50V	Z	D
C124L/R	3679562120	Mylar	0.0056μF	100V	J	
C125L/R	3679182120	Mylar	0.0018μF	100V	J	
C126L/R	3479210121	Electric SA	100μF	10V	M	
C127L/R	3479268871	Electric SA	0.68μF	100V	M	
C128L/R	3679562120	Mylar	0.0056μF	100V	J	
C129-C132	3479247041	Electric SA	47μF	25V	M	
C133/C134	3409222131	Electric SA	220μF	16V	M	
C135L/R	3479210121	Electric SA	100μF	10V	M	
Coils						
L101L/R	2648001010	Inductor 50μH				D
L102L/R	2648001010	Inductor 50μH				D
Diode						
D101/D102	2258106100	1N4002				
Resistors						
R101L/R	3069102970	1kΩ				
R102L/R	3069913970	91kΩ				
R103L/R	3069913970	91kΩ				
R104L/R	3069911970	910Ω				
R105L/R	3069433970	43kΩ				
R106L/R	3069564970	560kΩ				

Ref. No.	Part No.	Description	Remark
R107L/R	3069471970	470Ω	
R108L/R	3069104970	100kΩ	
R109L/R	3069105970	1MΩ	
R110L/R	3069753970	75kΩ	
R111L/R	3069122970	1.2kΩ	
R112L/R	3069680970	68Ω	
R113L/R	3069103970	10kΩ	
R114L/R	3069100970	10Ω	
R115L/R	3069473970	47kΩ	
R116L/R	3069562970	5.6kΩ	
R117L/R	3069473970	47kΩ	
R118L/R	3069562970	5.6kΩ	
R119L/R	3069470970	47Ω	
R120L/R	3069104970	100kΩ	
R121L/R	3069911970	910Ω	
R122L/R	3069433970	43kΩ	
R123L/R	3069564970	560kΩ	
R124L/R	3069471970	470Ω	
R125L/R	3069104970	100kΩ	
R126L/R	3069471970	470Ω	
R127-R130	3069471970	470Ω	
R131/R132	3069152970	1.5kΩ	
R133/R134	3069331970	330Ω	
R135/R136	·	Not used !	
R137L/R	3069911970	910Ω	
Relay M	5528001020	Relay RZ12 GS	
Relay S	5528001020	Relay RZ12 GS	
Transistors			
Q101L/R	2008607114	MC Amplifier 2SC3329	
Q102L/R	2008207107	MC Amplifier 2SA1376	
Q103/Q104	2208606114	MPS A06 Switching NPN	

Front P.C. Board 4002120700

Ref. No.	Part No.	Description				Remark
Capacitors						
C401	·	Not used !				
C402	3479222971	Electric SA	2.2µF	50V	M	
C403	3579470130	Ceramic	47pF	50V	D	
C404	3479222971	Electric SA	2.2µF	50V	M	
C405	3479222971	Electric SA	2.2µF	50V	M	
C406	3679153120	Mylar	0.015µF	100V	J	
C407	3679823120	Mylar	0.082µF	100V	J	
C408	3479222971	Electric SA	2.2µF	50V	M	
C409	3679153120	Mylar	0.018µF	100V	J	
C410	3479210041	Electric SA	10µF	25V	M	
C411	3579391130	Ceramic	390pF	50V	D	
C412	3479247021	Electric SA	47µF	10V	M	
C413	3479222971	Electric SA	2.2µF	50V	M	
C414	·	Not used !				
C415	3609104120	Mylar	0.1µF	100V	J	
C416	3679823120	Mylar	0.082µF	100V	J	
C417/C418	3409210141	Electric SA	100µF	25V	M	
C419	3679332120	Mylar	3300pF	100V	J	
C420	3479210971	Electric SA	1µF	50V	M	
C421/C422	3409210141	Electric SA	100µF	25V	M	
Diodes						
D401-D403	2371124502	LED SLR 54URC				
D404/D406	·	Not used !				
D405/D407	2371124702	LED SLR 54URC				
D408	2258106100	1N4148				
Resistors						
R400L/R	3069331970	330Ω				
R401L/R	·	Not used !				
R402L/R	3069104970	100kΩ				
R403L/R	3069221970	220Ω				
R404L/R	3069100970	10Ω				
R405L/R	3069100970	10Ω				
R406L/R	3069104970	100kΩ				
R407L/R	3069223970	22kΩ				
R408L/R	·	Not used !				
R409L/R	3069683970	68kΩ				
R410L/R	3069392970	3.9kΩ				
R411L/R	3069222970	2.2kΩ				
R412L/R	3069823970	82kΩ				
R413L/R	3069105970	1MΩ				
R414L/R	3069821970	820Ω				
R415L/R	3069474970	470kΩ				
R416L/R	3069101970	100Ω				
R416L/R	3069272970	2.7kΩ				
R417L/R	3069154970	150kΩ				
R418L/R	3069333970	3.3kΩ				
R419L/R	3069182970	1.8kΩ				
R420L/R	3069392970	3.9kΩ				
R421L/R	3069223970	22kΩ				
R422L/R	3069152970	1.5kΩ				
R423L/R	3069122970	1.2kΩ				
R424L/R	3069392970	3.9kΩ				
R425	3069470970	47Ω				
R425L/R	3069471970	470Ω				
R426	3069472970	4.7kΩ				
R427	3069472970	4.7kΩ				
R428	·	Not used !				
R429-R431	3069102970	1kΩ				
R432	·	Not used !				
R433	3069102970	1kΩ				
R433	3069331970	330Ω				
R434	3069470970	47Ω				
R434	3069472970	4.7kΩ				
Relay D	5528001020	Relay RZ12 GS				
Transistors						
Q401L/R	2008206104	Tone Buffer A970BL				
Q402L/R	2208606108	Tone Buffer C2240BL				
Q403	2208606114	Tone Buffer A06				

Power P.C. Board 4002120720

Ref. No.	Part No.	Description				Remark
Capacitors						
C333	3479222071	Electric SA	22µF	50V	M	
C334	3479222071	Electric SA	22µF	50V	M	
C901	3549472410	Ceramic	0.0047µF	400V	J	
C902-C906	3609153267	Mylar	0.015µF	400V	M	
C907	3479233971	Electric SA	3.3µF	50V	M	

Ref. No.	Part No.	Description	Remark
C908	3419568280	Electric SA 6800μF 63V M	
C909	3419568280	Electric SA 6800μF 63V M	
C910	3679473120	Mylar 0.047μF 100V J	
C911/C912	3409210269	Electric SA 1000μF 35V M	
C913/C914	3471210061	Electric SA 10μF 35V M	
C915	3679473120	Mylar 0.047μF 100V J	
C916/C917	·	Not used !	
C918/C919	3679472120	Mylar 0.047μF 100V J	
Diodes			
D901-D904	2058100138	6A2 Rectifier	
D905-D908	2058306101	1N4002	
D909	·	Not used !	
D910/D911	2058306101	1N4002	
D912	2258106100	1N4148	
Fuses			
F901	5508302935	T 4A 250V	
F902/F903	5508302635	500mA 250V	
Resistors			
R367/R368	·	Not used !	
R369	3069221970	220Ω	
R370	3069820970	82Ω	
R371/R372	3069560970	56Ω	
R901	3039102476	M.O., 1kΩ 1W	
R902/R903	3039339476	M.O., 3.3Ω 1W	
R904	3069332970	3.3kΩ	

Power LED P.C. Board 4002120770

Ref. No.	Part No.	Description	Remark
Diode			
D900	2371124702	LED SLR 54URC	
Resistor			
R909	3069102970	1kΩ	

Bias P.C. Board 4002120780

Ref. No.	Part No.	Description	Remark
Transistor			
Q306L/R	2008609107	Biasing MPS9633	

Headphone P.C. Board 4002120750

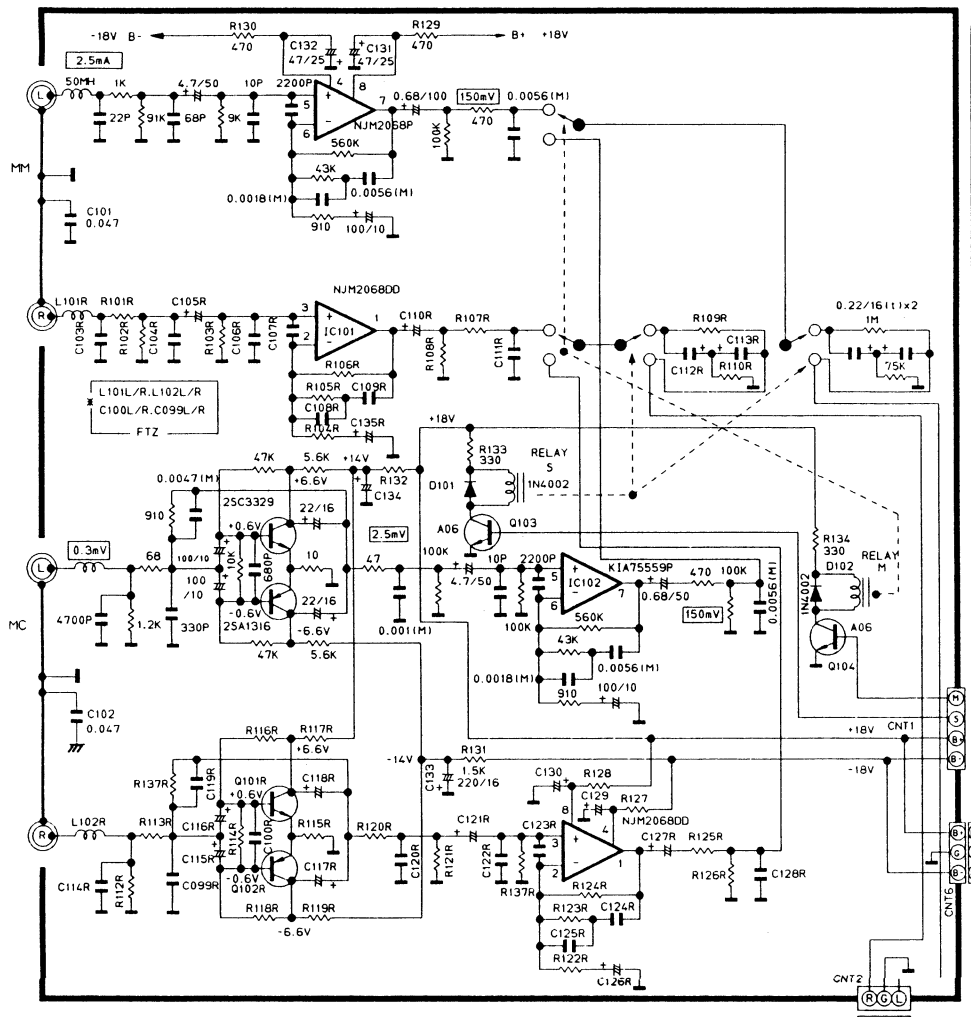
Ref. No.	Part No.	Description	Remark
Capacitor			
C339L/R	3579102530	Ceramic 1000pF 50V D	D
Resistors			
R365L/R	3039331576	M.O., 330Ω 2W	
R366L/R	3039681476	M.O., 680Ω 1W	

Posistor P.C. Board 4002120760

Ref. No.	Part No.	Description	Remark
Resistor			
R376	2438012100	Posistor PTH487A01BE22	
Connector Lead Ass'ies			
CNT1	4119104453	Slat Wire Ass'y from Phono to Front 450mm 4P	
CNT2	4358103209	Ass'y from Phono to Main Board, 200mm 3P	
CNT3	4358504301	Ass'y from Front to Main Board, 300mm 4P	
CNT4	·	Not used !	
CNT5	4358504301	Ass'y from Front to Main Board, 300mm 4P	
CNT6	4358103202	Ass'y from Phono to Main Board, 200mm 3P	
CNT7	4119104453	Slat Wire ass'y from Power to Main 450mm 4P	
CNT8	4119103453	Slat Wire Ass'y Headphone to Main 450mm 3P	
CNT9	4119103243	Slat Wire Ass'y Front to Power 240mm 3P	
CNT10	4119102353	Slat Wire Ass'y Front to Power LED 350mm 2P	
CNT11	·	Not used !	
CNT12	4358103166	Ass'y Baising to Main 160mm 3P	
CNT13	4358103166	Ass'y Baising to Main 160mm 3P	
CNT14	4358102452	Ass'y Main to Power 450mm 2P	
CNT15	·	Not used !	
CNT16	4358502140	Ass's Front to Main 140mm 2P	
CNT17	4119102703	Slat Wire Ass'y Posistor to Main 700mm 2P	
CNT18	4119103453	KST 0250DL Main to Power 500mm 2P	
CNT1P	4428513440	Plug 4P	
CNT2P	4428505710	Plug 3P	
CNT3P	4428517710	Plug 4P	
CNT4P	·	Not used !	
CNT5P	4428517710	Plug 4P	
CNT6P	4428505710	Plug 3P	
CNT7P	4428505610	Plug 4P	
CNT8P	4428505710	Plug 3P	
CNT9P	4428505710	Plug 3P	
CNT10P	4428513420	Plug 2P Angle	
CNT11P	·	Not used !	
CNT12P	4428505710	Plug 3P	
CNT13P	4428505710	Plug 3P	
CNT14P	4428508210	Plug 2P	
CNT15P	·	Not used !	
CNT16P	4428517510	Plug 2P	
CNT17P	4428508210	Plug 2P	
CNT18P	4428525780	Plug 2P AC	
G1	4235006810	Ground Plat	
G2	4235006810	Ground Plat	
Fuse Clip	4255001010	6EA	

Schematic Diagram

AI-5010



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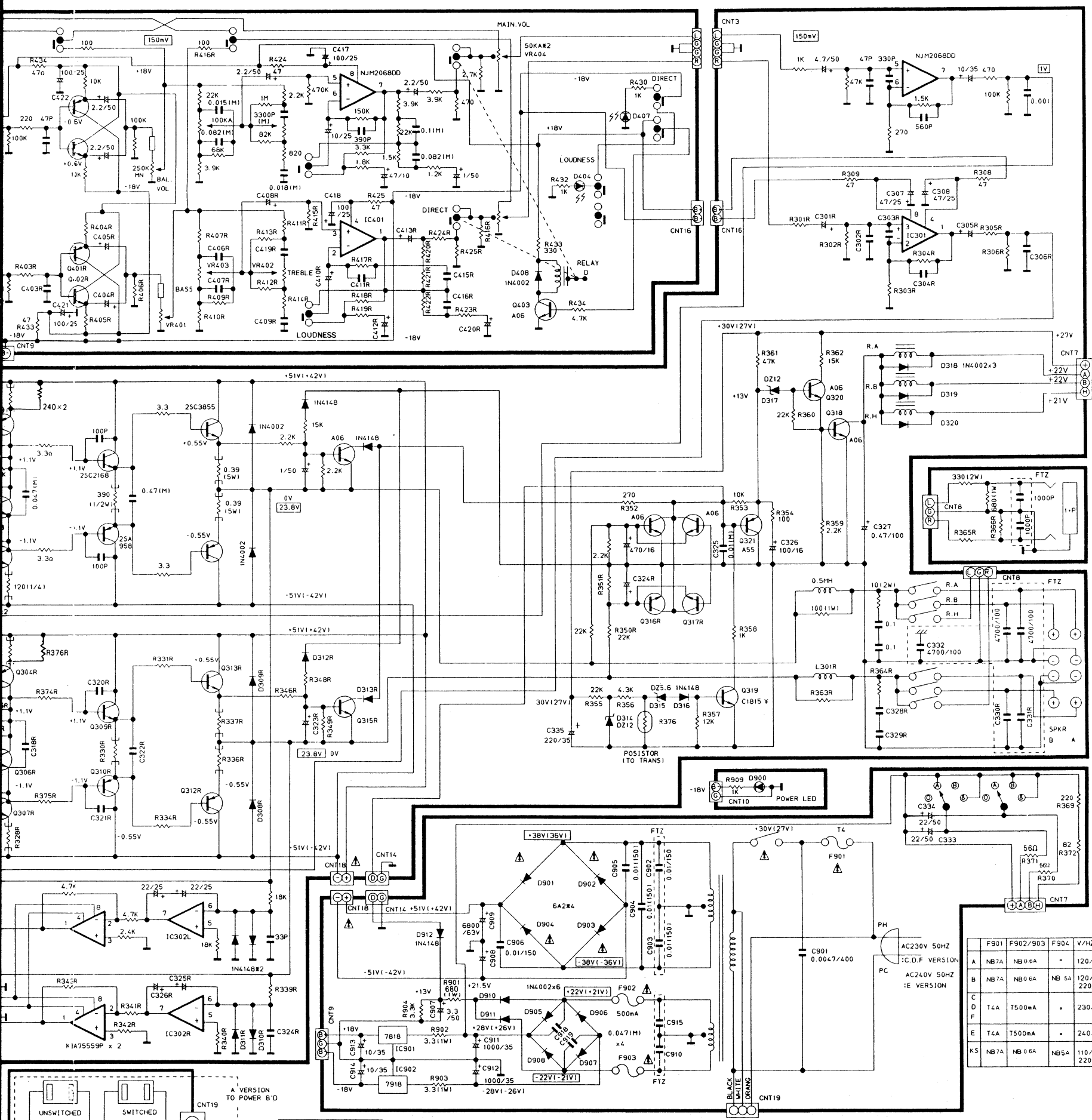
matic Diagram
AI-5010



	F901	F902/903	F904	V/HZ
A	NB7A	NB0.6A	*	120/60
B	NB7A	NB0.6A	NB 5A	120/60 220/50
C D F	T4A	T500mA	*	230/50
E	T4A	T500mA	*	240/50
KS	NB7A	NB0.6A	NB5A	110/60 220/60

SERVICE INFORMATION

NOTES 1. Resistance values are indicated in ohms unless otherwise specified (K=1,000 M=1,000,000)

2. Capacitance values are shown in microfarads unless otherwise noted (P=micro-micro farads.)

3. ▭ : Signal Voltage

CAUTION : Safety precautions to be followed during servicing

1) Since those parts marked with ⚠ are critical parts for safety use the one described parts list.

2) Before returning the receiver to the customer make appropriate leakage current or resistance measurements to determine that exposed parts are property insulated form the supply circuit.

Mechanical Parts List (Cabinet & Chassis)

No.	Description	Part No.	Q'ty	Remark
1	Panel Front, Black	048601000411	1	
2	Badge	048535031911	1	Domestic
(2)	Badge, Sherwood	048535032511	1	
3	Button Power, Main	8545074310	1	
4	Spring Power, Main	6555004380	1	
5	Button Speaker	8545074910	2	
6	Knob Rotary	048643004811	3	
7	Knob Main	048643005011	1	
8	Knob Function	048643004711	2	
9	Guide LED	048535031911	6	
10	Body Front, Black	048521007111	1	
11	Jack Phone	4438006020	1	
12	Washer	8305003810	1	
13	Spring	6555002510	2	
14	Insert Button	6055003210	2	
15	VR 100KA×2, Bass/Treble	3208059910	2	
16	VR 250 KMN, Balance	3208060010	1	
17	VR 50KA×2, Main Volume	3208058210	1	
18	Switch Push (4/2, S)	4628056910	2	
19	Switch Push (2/2, S)	4628050110	3	
20	Button Push 6 Key	048542001611	1	
21	Foot-Front, Hot Stamping	046033101611	2	
(21)	Foot-Front, Gold	046033101711	2	Domestic
22	Chassis Front	6122212710	1	
23	Cover Top, Black	046122021211	1	
24	Switch Power	4628056110	1	
25	Switch Speaker	4628056610	1	
26	Bushing	7015003110	2	
27	Bracket Heatsink	6505103910	1	
28	S/W Rotary REC/input selector	4608002510	2	
29	S/W Slide REC/input selector	4618007510	2	
30	Foot-Rear, Black	6033101610	2	A
(30)	Foot, Hot Stamping	046033101611	2	B,C,D,E,F
(30)	Foot, Rear, Gold	046033101711	2	Domestic
31	Cover Bottom	6122415710	1	
32	Frame Right	6122901610	1	
33	Jack RCA 2P, Phono MM	4438107510	1	
34	Jack RCA 2P, Phono MC	4438105810	1	
35	Jack RCA 2P, Aux	4438103010	1	
36	Jack RCA 2P, CD	4438105710	1	
37	Jack RCA 6P, Tuner/EXT	4438103210	1	
38	Jack RCA 4P, Tape 1/2	4438103110	2	
39	Terminal Speaker	4408105810	1	
40	Heatsink Power	7502004310	1	
41	Frame Left	6121605610	1	
42	Heatsink Regulator TR	7505206220	2	
43	Cable Tie	6528000410	1	
44	Selector Voltage	4618006510	1	
45	Outlet, Black	4448103010	1	A,B
(45)	Outlet, Black	4448100410	2	Domestic
46	Chassis Back, Black	046102028911	1	Domestic
(46)	Chassis Back, Black	046102028921	1	A
(46)	Chassis Back, Black	046102028931	1	B
(46)	Chassis Back, Black	046102028941	1	C
(46)	Chassis Back, Black	046102028951	1	D
(46)	Chassis Back, Black	046102028961	1	E
(46)	Chassis Back, Black	046102028971	1	F
47	Cord Stopper, Black	6518000310	1	Domestic
(47)	Cord Stopper, Black	6518000710	1	A,B
(47)	Cord Stopper, Black	6518000111	1	C,D,F
(47)	Cord Stopper, Black	6518000210	1	E
48	Bracket P.C.Board	6505108110	1	
49	Cord AC Power, Black	4308001610	1	Domestic
(49)	Cord AC Power, Black	4308001410	1	A,B
(49)	Cord AC Power, Black	4308002310	1	C,D,F
(49)	Cord AC Power, Black	4308000610	1	E
50	Adapter	4428300310	1	Domestic
51	Plug Jumper	4328204210	2	
52	System Gnd	4408104910	1	
53	Washer Spring φ3	8319130011	4	
54	Shield Fence	6163109210	1	
Screws				
S1	#2 BTC 3×8 ZNB	8109230083	28	
S2	#2 FTC 3×8 ZNB	8129230083	2	
S3	#2 WPTC 3×6 ZNB	8159230063	8	
S4	#2 Wsam 4×8 ZNB	8119440083	8	
S5	#2 PTC 3×8 ZNB	8119230083	20	
S6	#2 WPTC 3×8 ZNY	8159230081	8	
S7	Ground	8155000710	4	
S8	#2 PTC 4×6 ZNY	8119230061	1	
S9	#2 HEX 3×12 ZNY	8099130121	4	
S10	#2 WPTC 3×10 ZNY	8159230101	2	